

REMARKS

In this most recent Office Action, the Examiner has rejected claims 15-19, 21 and 27-29 as unpatentable over the combination of the teachings of Barthalon *et al* in view of White and Glaser *et al*.

It is noted that in an interview conducted on February 17, 2009, the differences between the claimed invention and the Barthalon *et al* reference were discussed, and the Examiners made suggestions for amendments to parent claim 15 to specify that the end chambers of the invention were sealed to a degree not found in Barthalon *et al*. The lack of sealing of the end chambers of Barthalon *et al* was fully discussed in the Amendment filed on February 11, 2009.

Claim 15 has now been additionally amended to recite that the opposed end chambers are *hermetically* sealed sufficiently that at each end of the piston there is formed a gas spring of a pressure of at least 10 bar. The value of 10 bar was previously found in claim 20, which was previously canceled.

The parent Claim 15 has further been amended herein to recite that the housing or tubular cylinder is the work output source and is connected to a tool or working device. The oscillations of the piston cause oscillations in the housing.

The claimed invention is a multi-purpose linear electric engine which can be used to power a pump, compressor, drill hammer, etc.

Each of the patents of Barthalon *et al*. and White are electromagnetic compressors, not multi-functional liner engines. In each case, the piston element accomplishes the work of compressing gas directly, not the housing or cylinder as in the present invention.

In the present claimed invention, the piston oscillates and does no direct work. This violent oscillations causes the housing to oscillate which in turn is directly connected to the tool or working device such as a hammer, compressor, pump, drill, etc.

This arrangement provides advantages over either Barthalon *et al.* or White. By hermetically sealing the cylinder ends, applicant can freely choose the fluid in the gas springs and there will be no leakage problems. White must select the gas that he intends to compress and his gas springs will be influenced by the pressure in the compression chambers which he compensates for by use of a porting system 54,55.

An additional feature of the present invention is that the force that the oscillating housing produces when moving can be many times greater in magnitude than the electromagnetic force between the piston and the cylinder or housing.


It has long been held that obviousness (Section 103) cannot be established by combining teachings of prior art references to produce the claimed invention, absent some teaching or suggestion supporting the combination; teachings of references can be combined only if there is some suggestion or incentive to do so, under 35 U.S.C. §103. See *ACS-Hospital Systems, Inc. v. Montefiore Hospital et al.* 221 USPQ 929 (Fed. Cir.1984).

Here, the cited prior art fails to provide any such suggestion or incentive for such a combination.

Applicants submit that the claims are clearly distinguished from the disclosures of Barthalon et al., White or Glaser et al. or any reasonable combination thereof.

Accordingly, reconsideration of the rejection and allowance of the claims is solicited.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Donald L. Dennison".

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